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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,354	12/28/2001	Shamik Shah	SAMS01-00164	2288

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06/12/2006

Docket Clerk
P.O. Box 800889
Dallas, TX 75380

EXAMINER

PEREZ, ANGELICA

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/035,354	Applicant(s) SHAH ET AL.	
	Examiner Perez M. Angelica	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 4/19/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-34, 37-43 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi (Krishnamurthi, Rajeev; US Patent No.: 6,157,828 A) in view of Epler (Epler et al., US Patent No.: 5,825,867 A).

Regarding claims 24, 28, 32 and 41, Krishnamurthi teaches of a method (abstract), a mobile switching center (figure 1, item 10; column 3, lines 49-53), a base station serving a mobile station participating in a first call (figure 1, items 12 and 16; column 4, lines 47-49 and 55-59, where the first call is held with party 2 30), for use in a wireless communications system wireless communications system (column 3, lines 46-48; e.g., "cellular system") comprising: a controller which, having sent a call waiting notification to a base station serving a mobile station participating in a first call, the call waiting notification indicating that a new second call is waiting to be put through to the mobile station (column 3, lines 46-58; where the controller perform the "controlling switching functions"; column 4, lines 47-49, 55-59; where the MSC sends the signaling of the other party, call waiting notification, to the BS and the base station communicates it to the MS), and received a clear request message from the base station in response

to the call waiting notification, transmits a clearing procedure message to the base station to maintain resource allocations designated for the mobile station and alert the mobile station that the second call is waiting (columns 5 and 6, lines 48-67 and 1-10).

Krishnamurthi does not specifically teach where prior to the second call being put through to the mobile station, where the clear request message is sent by the base station in response to a release order sent by the mobile station.

In related art concerning enhanced call waiting, Epler teaches where prior to the second call being put through to the station, where the clear request message is sent in response to a release order sent by the station (paragraphs 14 and lines 41-67 and 1-3; where the new second caller holds while the user is connected to a first second caller. The user hangs up, request release, and after the clearing, the new second caller is connected to the user).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi's and Epler's methods in order to enhance wireless technologies with valuable features of non-wireless technologies.

Regarding claims 25, 29, 33 and 42, Krishnamurthi teaches all the limitations according to claims 24, 28, 32 and 41, respectively. In addition, Krishnamurthi teaches where the message is a clear reject message defined to prompt maintenance of the resource allocations designated for the mobile station and transmission of an alert to the mobile station of the holding call (column 5, lines 51-67 and column 6, lines 1-10; where the prevention of the release of the traffic channel is triggered by a clear reject message).

Regarding claims 26, 30, 34 and 43, Krishnamurthi in view of Epler teaches all the limitations according to claims 24, 28, 32 and 41, respectively. Krishnamurthi further teaches where the clearing procedure message is a clear reject message defined to prompt maintenance of the resource allocations designated for the mobile station and transmission of an alert to the mobile station that the second call is waiting (column 5, lines 41-67 and column 6, lines 1-10; e.g., "release message" corresponding to a "clear command message").

Regarding claims 27 and 31, Krishnamurthi in view of Epler teaches all the limitations according to claims 24 and 28, respectively. In addition, Krishnamurthi teaches where, after transmitting the clearing procedure message, the controller awaits a connect message indicating that the mobile station has initiated connection to the second call (column 5, lines 58-65; where the MSC waits for the MS response entered by the subscriber, then MS 32 is connected to party 1 28).

Regarding claim 37, Krishnamurthi in view of Epler teaches all the limitations according to claim 32. In addition, Krishnamurthi teaches where the base station, upon receiving the clearing procedure message, transmits an alert with information message to the mobile station to alert the mobile station that the second call is waiting (columns 4 and 5, lines 55-59 and 40-44; respectively; where the alert is a "ring" tone).

Regarding claim 38 and 45, Krishnamurthi in view of Epler teaches all the limitations according to claims 37 and 41, respectively. Krishnamurthi further teaches where the base station, in transmitting the alert with information message to the mobile

station, causes a ring tone to sound at the mobile station (columns 4 and 5, lines 55-59 and 40-44; where the alert is a "ring" tone).

Regarding claim 39, Krishnamurthi in view of Epler teaches all the limitations according to claim 37. Krishnamurthi also teaches where the base station, after transmitting the alert with information message to the mobile station, awaits an acknowledgment of the alert with information message from the mobile station (column 5, lines 61-65; where the subscriber answer, acknowledgement, is sent to the BS).

Regarding claims 40 and 46, Krishnamurthi in view of Epler and further teaches all the limitations according to claims 37 and 41, respectively. Krishnamurthi further teaches where the base station, after transmitting the alert with information message to the mobile station, awaits a connect order from the mobile station requesting connection to the second call and, upon receiving the connect order, transmits a connect message to the mobile switching center (column 5, lines 61-65; where the subscriber answer sent to the BS is subsequently directed to the MSC and where party 1 28 corresponds to the second call).

3. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Epler, and further in view of Lekven (Lekven et al., US Patent No.: 5,884,196 A).

Regarding claim 35, Krishnamurthi in view of Epler teaches all the limitations according to claim 32.

Krishnamurthi in view of Epler does not teach where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message.

In related art concerning preserving power of a remote unit, Lekven teaches where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message (column 11, lines 35-40; where 1.5 seconds is a standard time delay for a transmission message).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi in view of Epler base station serving a terminal call communication with Lekven's 1.5 second default value in order to allow the message to communicate the information before the clear request is executed.

4. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Epler, and further in view of Shishino (Shishino, Shinishi; US Patent No.: 6,108,563 A).

Regarding claim 36, Krishnamurthi in view of Epler and teaches all the limitations according to claim 30.

Krishnamurthi in view of Epler does not teach where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call.

In related art concerning a communication control apparatus, Shishino teaches where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call (column 9, lines 50-53; where an allocated time for reconnection is granted before disconnection occurs).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi in view of Epler base station serving a terminal call communication with Shishino's default value in order to have enough time for a subscriber to react to the warning.

5. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Epler, further in view of Lekven, and further in view of Shishino (Shishino, Shinishi; US Patent No.: 6,108,563 A).

Regarding claim 44, Krishnamurthi in view of Epler teaches all the limitations according to claim 41.

Krishnamurthi in view of Epler does not teach of starting a timer for the base station having a default value of 1.5 seconds in response to transmitting the clear request; stopping the timer for the base station in response to receiving the message; starting a timer for the mobile switching center having a default value of 30 seconds in response to transmitting the message; and stopping the timer for the mobile switching center in response to receiving a connect message indicating that the mobile station has initiated connection to the holding call.

Lekven teaches where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message (column 11, lines 35-40; where 1.5 seconds is a standard time delay for a transmission message).

Shishino further teaches where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile

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station has initiated connection to the holding call (column 9, lines 50-53; where an allocated time for reconnection is granted before disconnection occurs).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi in view of Epler base station serving a terminal call communication with Lekven's and Shishino's default values in order to allow a determined maximum waiting time for a response.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No.: 5,930,347 A, refers to interruption of a call between two terminals by a call from another terminal. .


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

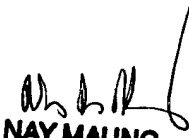
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.



Angelica Perez
Examiner



NAY MAUNG
SUPERVISORY PATENT EXAMINER

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May 17, 2006